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TDS TELECOM

Government and Regulatory Affairs

Via Overnight Letter

October 25, 1996

Ex Parte

William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, DC 20554

Re: CC Docket 96-45, In the Matter of Federal-State Joint Board on Universal Service

Dear Mr. Caton:

On October 24, 1996, TDS Telecom provided to the members and staff of the Joint Board, via overnight mail, maps and graphs detailing the inadequacies of proxies for determining rural LECs' costs.

Enclosed herewith are the documents provided to the Joint Board and staff. I have enclosed three copies of this notice and attachments in accordance with sections 1.1206(a)(1) and 1.1206(a)(2) of the Commission's rules. Please date stamp and return the provided copy in the enclosed self-addressed, stamped envelope.

Respectfully submitted,

Elizabeth H. Valinoti

Elizabeth H. Valinoti
Manager
External Relations

Attachments

No. of Copies rec'd
List ABCDE

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TDS TELECOM

October 24, 1996

Chairman Reed Hundt
FCC
1919 M Street, NW
8th Floor
Washington, D.C. 20054

Dear Chairman Hundt:

The Joint Board's recent interest in proxy models prompted TDS Telecom to analyze the second Benchmark Cost Model (BCM2) as it applies to our companies. TDS Telecom is a microcosm of rural telephony in the United States: it is composed of more than 100 local exchange operating companies in 28 states, serving an average of 4,000 access lines per company. Our analysis shows that the current BCM2 does not adequately reflect the high cost characteristics of TDS Telecom's companies. We predict, therefore, that BCM2, or comparable proxy models, will not appropriately account for the cost characteristics of other rural telephone companies similarly situated to TDS Telecom.

We have enclosed a map of UTELCO, one of our Wisconsin operating companies, with BCM2 mapping overlaid on it. The UTELCO map highlights that BCM2's use of Census Block Groups (CBGs) will lead to improperly targeted universal service support: CBG borders incorrectly map exchange boundaries; improperly assign territories to telephone companies; and, inadequately disaggregate costs in rural areas. On the map, the UTELCO serving territory is shaded blue; territory assigned to UTELCO by the BCM2 is shaded in brown. The result is a mismatch between actual loops and loops assigned by the proxy. BCM2 assigns more than 2,000 additional loops to UTELCO, which has only about 13,000 loops: a 17 percent overestimate of loop count.

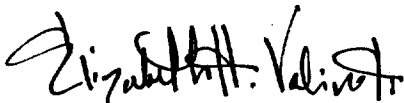
BCM2's disaggregation deficiencies are highlighted by the city of Monroe, shown at the bottom of the map. Monroe contains CBGs completely within the city proper, and other CBGs which cover only a small portion of the city and extend far into the countryside. The result is wildly different proxy costs for serving two houses across the street from each other. The cost per loop in two inner city CBGs ranges from \$550 to \$650 per loop. The cost per loop of the CBG on the north end of town, which includes an industrial park, exceeds \$2,500 per loop. Thus, if universal service support were determined by proxy cost, a competitor could reap a windfall for serving the industrial park. The city of South Wayne, by comparison, lies within one CBG; loops here, according to BCM2, would cost the same to serve, regardless of whether they are close to the switch or at the far end of the exchange. CBGs clearly are inappropriate, potentially disastrous, boundaries for disaggregating costs in rural areas and urban sections of rural areas.

Also enclosed are graphs of BCM2 treatment of our companies in terms of loop count and cost per loop. The first graph compares actual USF loops to BCM2 proxy loops for all 104 TDS Telecom companies. BCM2 overestimates total TDS Telecom loops by approximately 35 percent. The graph shows that for individual companies, the difference can be much greater. Along with the graph is a table detailing the actual comparisons for the companies. The second graph compares the actual loop cost versus proxy loop cost. The BCM2 proxy, on average, overestimates loop cost by approximately 100 percent. Again, for individual companies, the difference can be significantly greater.

TDS Telecom has just begun its examination of proxy models and has only looked closely at the results of the BCM2. We understand that proxy model proponents are addressing the problems detailed above through various efforts, such as the "Best of Breed" model. We have not yet seen details on that effort. Given what is shown in our exhibits, however, the Joint Board should be cautious about the types of companies to which it applies a proxy model, and should also consider the ramifications of even transitioning to such a model.

If you would like to discuss the information contained in these exhibits, please feel free to contact me at 608-845-4159.

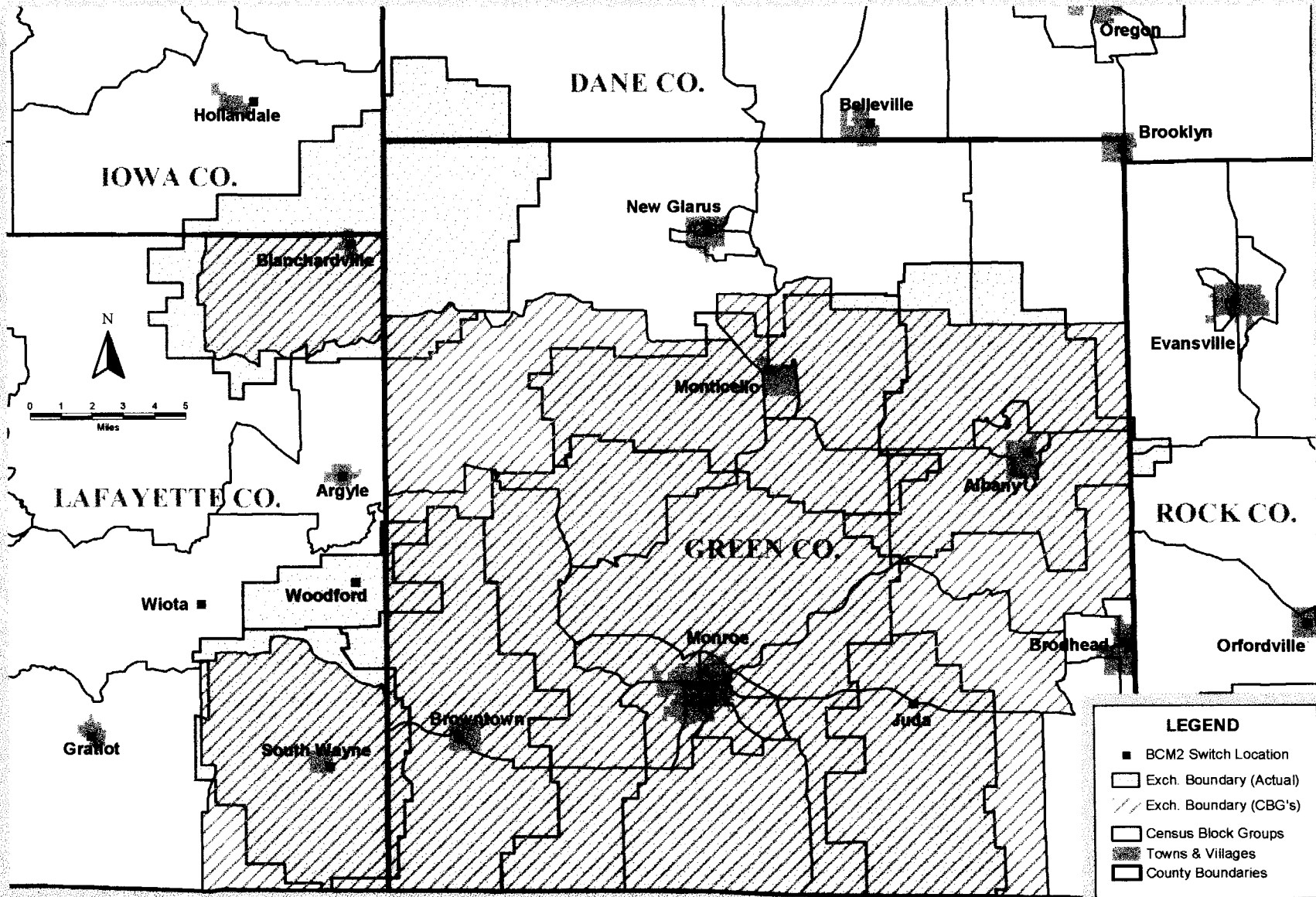
Sincerely,

A handwritten signature in black ink, appearing to read "Elizabeth H. Valinoti". The signature is stylized with a large initial "E" and a long, sweeping underline.

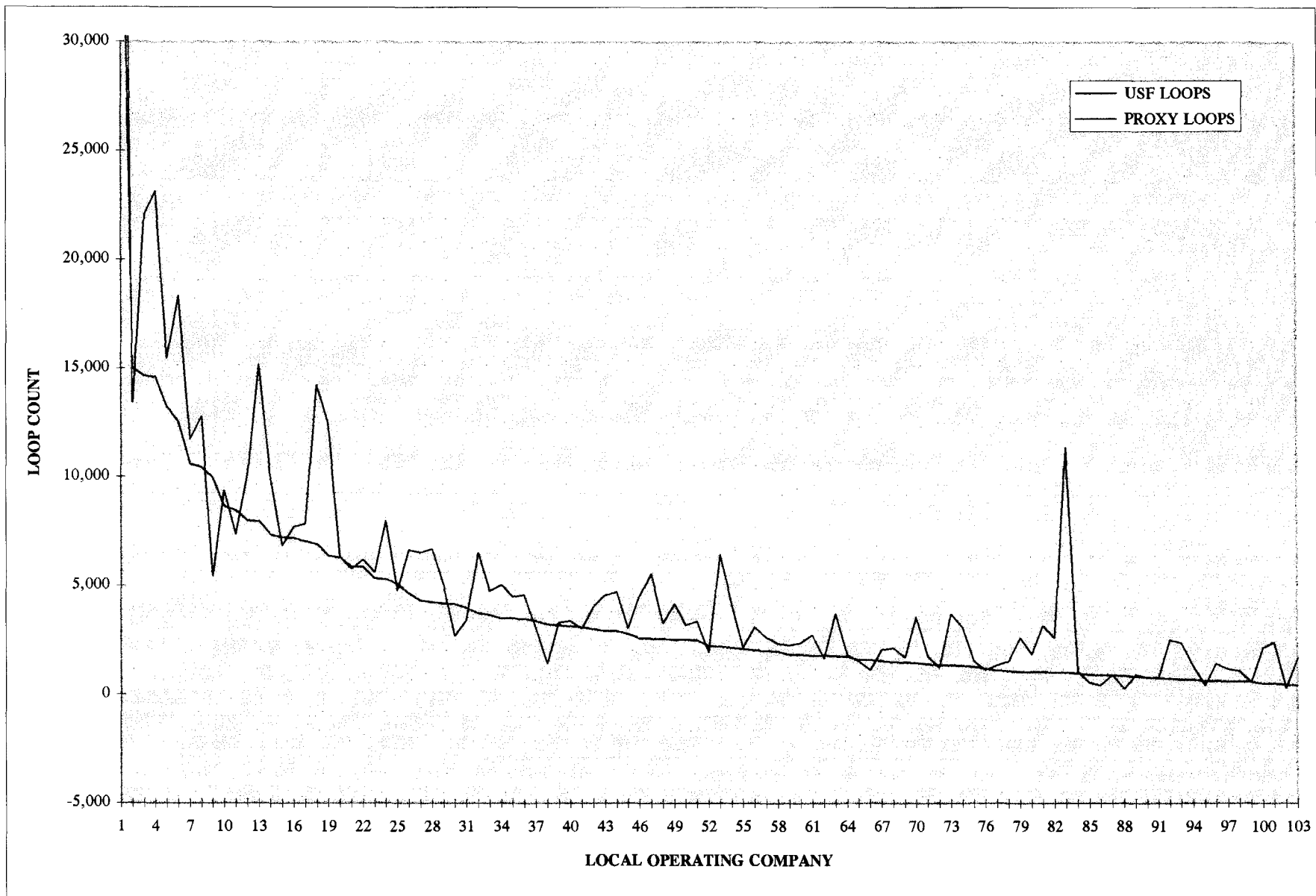
Elizabeth H. Valinoti
Manager, External Relations

Enclosures

TDS TELECOM - UTELCO, INC. BCM2 Mapping



**TDS TELECOM OPERATING COMPANIES
USF LOOPS VS. BCM2 LOOPS**



SOURCE: NECA data filed with FCC August 1996.

TDS TELECOM

USF LOOPS VS. BCM2 LOOPS

KEY	STATE	COMPANY	USF LOOPS	PROXY LOOPS	DIFFERENCE (PROXY LESS ACTUAL)	ABSOLUTE PERCENT CHANGE
1	TN	TENNESSEE TEL CO	44,002	66,533	22,531	51.20%
2	GA	CAMDEN TEL & TEL CO	15,022	13,426	-1,596	10.62%
3	OK	OKLAHOMA COMM SYSTEM	14,664	22,045	7,381	50.33%
4	TN	CONCORD TEL EXCHANGE	14,621	23,130	8,509	58.20%
5	WI	UTELCO, INC	13,238	15,455	2,217	16.75%
6	AL	PEOPLES TEL CO	12,508	18,337	5,829	46.60%
7	FL	QUINCY TEL CO-FL DIV	10,609	11,752	1,143	10.77%
8	ME	SOMERSET TEL CO	10,465	12,793	2,328	22.25%
9	MN	ARVIG TEL CO	10,010	5,443	-4,567	45.62%
10	IN	COMM CORP OF INDIANA	8,683	9,396	713	8.21%
11	WI	CENTRAL STATE TEL CO	8,483	7,372	-1,111	13.10%
12	NY	DEPOSIT TEL CO	8,022	10,094	2,072	25.83%
13	MI	WOLVERINE TEL CO	7,968	15,177	7,209	90.47%
14	GA	BLUE RIDGE TEL CO	7,377	10,054	2,677	36.29%
15	WI	MT VERNON TEL CO	7,235	6,857	-378	5.22%
16	WI	MIDWAY TEL CO	7,212	7,724	512	7.10%
17	CO	DELTA COUNTY TEL CO	7,066	7,856	790	11.18%
18	KY	LESLIE COUNTY TEL CO	6,937	14,233	7,296	105.18%
19	TN	TELLICO TEL CO	6,406	12,489	6,083	94.96%
20	MN	MID STATE TEL CO	6,307	6,340	33	0.52%
21	NH	KEARSARGE TEL CO	5,885	5,781	-104	1.77%
22	WI	BADGER TELECOM, INC.	5,881	6,194	313	5.32%
23	MN	BRIDGEWATER TEL CO	5,369	5,632	263	4.90%
24	WI	EASTCOAST TELECOM	5,309	7,996	2,687	50.61%
25	WI	WAUNAKEE TEL CO	5,128	4,776	-352	6.86%
26	MI	SHIAWASSEE TEL CO	4,670	6,671	2,001	42.85%
27	AL	BUTLER TEL CO	4,338	6,547	2,209	50.92%
28	SC	WILLISTON TEL CO	4,283	6,700	2,417	56.43%
29	SC	ST STEPHEN TEL CO	4,208	5,027	819	19.46%
30	VT	LUDLOW TEL CO	4,190	2,707	-1,483	35.39%
31	VA	AMELIA TEL CORP	4,016	3,447	-569	14.17%
32	MI	COMM CORP OF MI	3,762	6,528	2,767	73.55%
33	PA	MAHANAY & MAHANTONGO	3,678	4,766	1,088	29.58%
34	MS	CALHOUN CITY TEL CO	3,534	5,045	1,511	42.76%
35	WA	LEWIS RIVER TEL CO	3,516	4,519	1,003	28.53%
36	WI	GRANTLAND TELECOM	3,508	4,611	1,103	31.44%
37	VT	NORTHFIELD TEL CO	3,411	3,074	-337	9.88%
38	AZ	SOUTHWESTERN TEL CO	3,264	1,450	-1,814	55.58%
39	ME	HARTLAND & ST ALBANS	3,221	3,343	122	3.79%
40	MS	SOUTHEAST MS TEL CO	3,173	3,417	244	7.69%

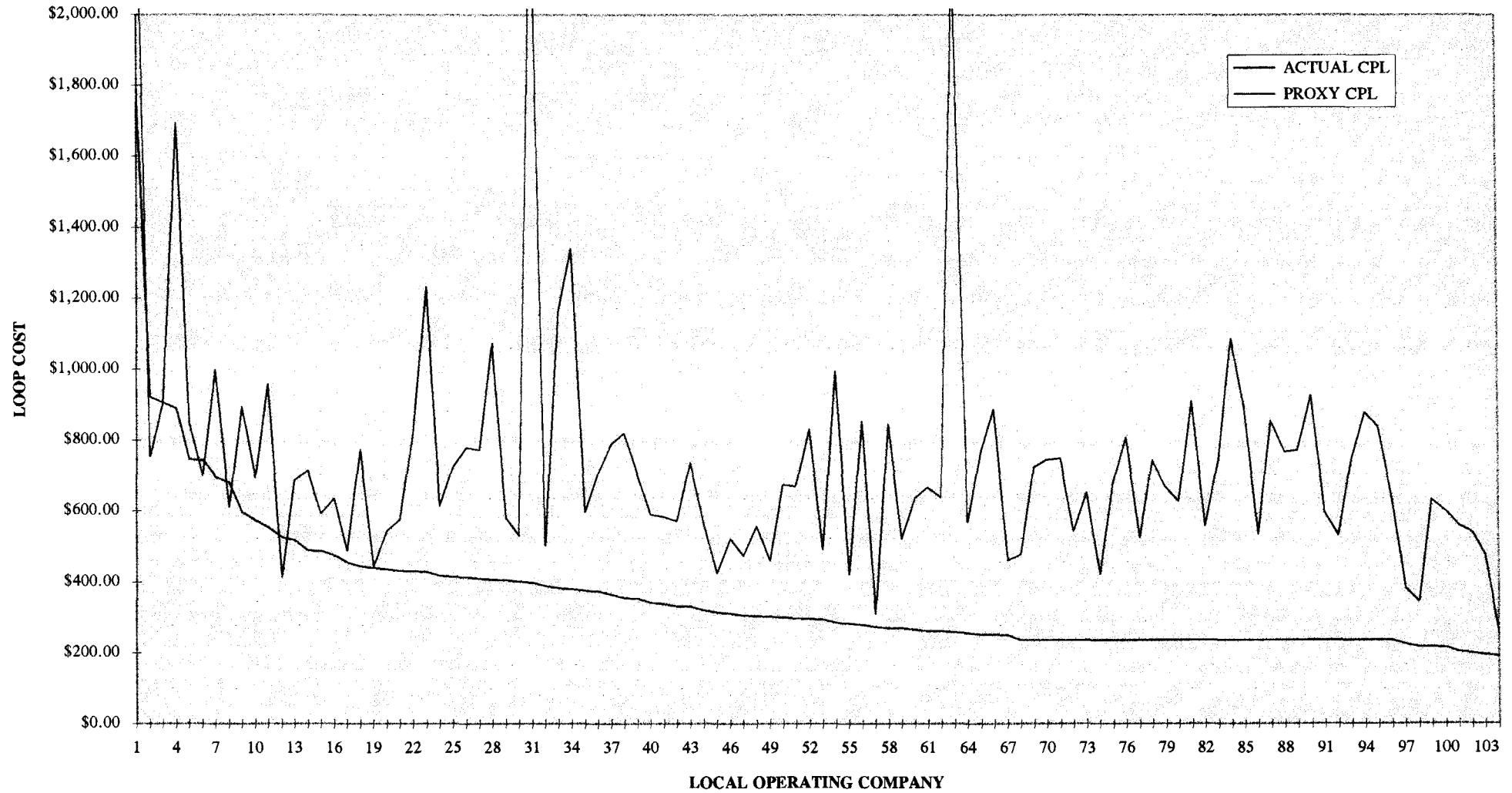
TDS TELECOM
USF LOOPS VS. BCM2 LOOPS

KEY	STATE	COMPANY	USF LOOPS	PROXY LOOPS	DIFFERENCE (PROXY LESS ACTUAL)	ABSOLUTE PERCENT CHANGE
41	WI	BURLINGTON B&W	3,117	3,053	-64	2.05%
42	WA	MCDANIEL TEL CO	3,036	4,052	1,016	33.47%
43	NY	PORT BYRON TEL CO	2,948	4,582	1,634	55.43%
44	CA	HAPPY VALLEY TEL CO	2,940	4,741	1,801	61.26%
45	AR	CLEVELAND COUNTY TEL	2,814	3,067	253	8.99%
46	ME	HAMPDEN TEL CO	2,620	4,568	1,948	74.35%
47	NY	VERNON TEL CO	2,620	5,574	2,954	112.75%
48	WI	RIVERSIDE TELECOM	2,587	3,293	706	27.29%
49	WI	STOCKBRIDGE & SHERWD	2,556	4,182	1,626	63.62%
50	MI	CHATHAM TEL CO - MI	2,539	3,214	675	26.59%
51	AZ	ARIZONA TELEPHONE CO	2,529	3,389	860	34.01%
52	WI	SCANDINAVIA TEL CO	2,268	1,976	-292	12.87%
53	AL	OAKMAN TEL CO (TDS)	2,243	6,448	4,205	187.47%
54	OH	LITTLE MIAMI COMM.	2,175	4,184	2,009	92.37%
55	OH	CONTINENTAL OF OHIO	2,139	2,202	63	2.95%
56	ME	WEST PENOBSCOT TEL	2,053	3,123	1,070	52.12%
57	AL	GROVE HILL TEL CORP	2,042	2,659	617	30.22%
58	IN	HOME TEL CO INC	2,013	2,371	358	17.78%
59	VA	NEW CASTLE TEL. CO.	1,871	2,305	434	23.20%
60	VA	VIRGINIA TEL CO	1,852	2,387	535	28.89%
61	NY	EDWARDS TEL CO	1,821	2,758	937	51.46%
62	KY	SALEM TEL CO	1,821	1,687	-134	7.36%
63	IN	COMM CORP OF S. IN	1,806	3,723	1,917	106.15%
64	IN	HOME CO OF PITTSBORO	1,780	1,840	60	3.37%
65	ME	WARREN TEL CO	1,623	1,543	-80	4.93%
66	WI	BONDUEL TEL CO	1,610	1,146	-464	28.82%
67	IN	CAMDEN TEL CO - IN	1,566	2,079	513	32.76%
68	OK	MID-AMERICA TEL INC	1,528	2,171	643	42.08%
69	MN	K M P TEL CO	1,498	1,734	236	15.75%
70	TN	HUMPHREYS COUNTY TEL	1,484	3,580	2,096	141.24%
71	CA	WINTERHAVEN TEL. CO.	1,417	1,793	376	26.53%
72	MN	WINSTED TEL CO	1,383	1,284	-99	7.16%
73	NC	SALUDA MOUNTAIN TEL	1,371	3,712	2,341	170.75%
74	SC	MCCLELLANVILLE TEL	1,345	3,075	1,730	128.62%
75	NH	CHICHESTER TEL CO	1,302	1,568	266	20.43%
76	WI	BLACK EARTH TEL CO	1,228	1,145	-83	6.76%
77	KY	LEWISPORT TEL CO	1,133	1,380	247	21.80%
78	AR	DECATUR TEL CO INC	1,108	1,544	436	39.35%
79	MO	STOUTLAND TEL CO	1,076	2,608	1,532	142.38%
80	OH	OAKWOOD TEL CO	1,071	1,865	794	74.14%

TDS TELECOM
USF LOOPS VS. BCM2 LOOPS

KEY	STATE	COMPANY	USF LOOPS	PROXY LOOPS	DIFFERENCE (PROXY LESS ACTUAL)	ABSOLUTE PERCENT CHANGE
81	NC	BARNARDSVILLE TEL CO	1,069	3,189	2,120	198.32%
82	NC	SERVICE TEL CO	1,037	2,621	1,584	152.75%
83	WA	ASOTIN TEL - WA	1,033	11,383	10,350	1001.94%
84	PA	SUGAR VALLEY TEL CO	1,001	1,078	77	7.69%
85	ID	POTLATCH TEL CO INC	928	568	-360	38.79%
86	WI	TENNEY TEL CO	919	440	-479	52.12%
87	CO	STRASBURG TEL CO	907	921	14	1.54%
88	MI	ISLAND TEL CO	880	261	-619	70.34%
89	MO	NEW LONDON TEL CO	848	942	94	11.08%
90	VT	PERKINSVILLE TEL CO	813	808	-5	0.62%
91	ID	TROY TELEPHONE CO	770	799	29	3.77%
92	AL	GOSHEN TEL CO	750	2,535	1,785	238.00%
93	OH	ARCADIA TEL CO	711	2,403	1,692	237.97%
94	NY	ORISKANY FALLS TEL	701	1,296	595	84.88%
95	OH	VANLUE TEL CO	648	431	-217	33.49%
96	SC	NORWAY TEL CO	644	1,432	788	122.36%
97	GA	QUINCY TEL CO-GA DIV	629	1,194	565	89.83%
98	MO	ORCHARD FARM TEL CO	627	1,113	486	77.51%
99	OR	HOME TELEPHONE CO	625	595	-30	4.80%
100	CA	HORNITOS TEL CO	542	2,159	1,617	298.34%
101	NH	MERIDEN TEL CO	535	2,419	1,884	352.15%
102	ME	ISLAND TEL CO	489	311	-178	36.40%
103	MN	DANUBE TEL CO	446	1,717	1,271	284.98%
104	OR	ASOTIN TEL - OR	<u>105</u>	<u>62</u>	<u>-43</u>	<u>40.95%</u>
TDS TELECOM AVERAGE			3,911	5,279	1,368	34.97%

**TDS TELECOM OPERATING COMPANIES
ACTUAL COST PER LOOP
VS.
BCM2 COST PER LOOP**



SOURCE: NECA data filed with FCC August 1996.

TDS TELECOM

ACTUAL CPL VS. BCM2 CPL

Using Study-Area Factors

(developed using company specific carrying factors)

KEY	STATE	COMPANY	ACTUAL CPL	PROXY CPL	DIFFERENCE (PROXY LESS ACTUAL)	ABSOLUTE PERCENT CHANGE
1	OR	ASOTIN TEL - OR	\$1,788.04	\$2,544.01	\$755.97	42.28%
2	MO	ORCHARD FARM TEL CO	\$922.67	\$754.01	(\$168.66)	18.28%
3	CA	HORNITOS TEL CO	\$907.78	\$903.45	(\$4.33)	0.48%
4	MI	ISLAND TEL CO	\$891.04	\$1,695.96	\$804.92	90.33%
5	SC	MCCLELLANVILLE TEL	\$747.06	\$850.99	\$103.93	13.91%
6	AL	GOSHEN TEL CO	\$744.26	\$699.17	(\$45.09)	6.06%
7	CA	HAPPY VALLEY TEL CO	\$698.17	\$1,000.68	\$302.50	43.33%
8	CA	WINTERHAVEN TEL. CO.	\$683.13	\$611.97	(\$71.16)	10.42%
9	NY	EDWARDS TEL CO	\$599.38	\$895.06	\$295.68	49.33%
10	ID	POTLATCH TEL CO INC	\$575.30	\$695.13	\$119.82	20.83%
11	MO	STOUTLAND TEL CO	\$556.43	\$960.19	\$403.76	72.56%
12	WA	ASOTIN TEL - WA	\$527.60	\$413.38	(\$114.22)	21.65%
13	MS	SOUTHEAST MS TEL CO	\$519.80	\$686.50	\$166.70	32.07%
14	MI	CHATHAM TEL CO - MI	\$490.17	\$714.64	\$224.47	45.79%
15	AR	CLEVELAND COUNTY TEL	\$489.28	\$593.13	\$103.85	21.23%
16	AL	BUTLER TEL CO	\$475.74	\$636.21	\$160.47	33.73%
17	NC	SALUDA MOUNTAIN TEL	\$456.03	\$489.24	\$33.21	7.28%
18	VA	NEW CASTLE TEL. CO.	\$445.17	\$775.50	\$330.33	74.20%
19	OK	OKLAHOMA COMM SYSTEM	\$440.97	\$443.65	\$2.68	0.61%
20	MO	NEW LONDON TEL CO	\$436.53	\$544.79	\$108.26	24.80%
21	SC	WILLISTON TEL CO	\$433.62	\$575.77	\$142.15	32.78%
22	NC	BARNARDSVILLE TEL CO	\$431.88	\$820.83	\$388.94	90.06%
23	OR	HOME TELEPHONE CO	\$430.39	\$1,233.44	\$803.05	186.59%
24	AL	PEOPLES TEL CO	\$418.66	\$615.01	\$196.35	46.90%
25	NY	PORT BYRON TEL CO	\$415.74	\$726.03	\$310.29	74.64%
26	VT	PERKINSVILLE TEL CO	\$414.57	\$779.25	\$364.68	87.97%
27	NH	CHICHESTER TEL CO	\$409.95	\$773.26	\$363.31	88.62%
28	NY	DEPOSIT TEL CO	\$407.53	\$1,074.56	\$667.03	163.68%
29	WA	LEWIS RIVER TEL CO	\$406.77	\$580.98	\$174.21	42.83%
30	KY	LESLIE COUNTY TEL CO	\$402.13	\$530.07	\$127.94	31.82%
31	AZ	ARIZONA TELEPHONE CO	\$399.14	\$2,391.69	\$1,992.55	499.21%
32	GA	QUINCY TEL CO-GA DIV	\$389.68	\$502.34	\$112.66	28.91%
33	PA	SUGAR VALLEY TEL CO	\$384.08	\$1,162.43	\$778.35	202.65%
34	ME	ISLAND TEL CO	\$381.42	\$1,341.24	\$959.82	251.64%
35	VA	AMELIA TEL CORP	\$377.44	\$597.26	\$219.82	58.24%
36	AL	GROVE HILL TEL CORP	\$375.47	\$705.82	\$330.35	87.98%
37	PA	MAHANoy & MAHANTONGO	\$366.29	\$789.18	\$422.89	115.45%
38	OH	LITTLE MIAMI COMM.	\$356.37	\$819.96	\$463.59	130.09%
39	WI	CENTRAL STATE TEL CO	\$355.28	\$703.03	\$347.75	97.88%

NOTE: Generally as a service area becomes smaller, the proxy derived total study area expense adjustment rises because the affects of geographic averaging have been removed.

TDS TELECOM

ACTUAL CPL VS. BCM2 CPL

Using Study-Area Factors

(developed using company specific carrying factors)

KEY	STATE	COMPANY	ACTUAL CPL	PROXY CPL	DIFFERENCE (PROXY LESS ACTUAL)	ABSOLUTE PERCENT CHANGE
40	IN	COMM CORP OF INDIANA	\$343.77	\$591.55	\$247.78	72.08%
41	ME	HARTLAND & ST ALBANS	\$339.52	\$585.32	\$245.80	72.40%
42	AR	DECATUR TEL CO INC	\$332.96	\$572.54	\$239.58	71.95%
43	ME	SOMERSET TEL CO	\$332.31	\$737.32	\$405.01	121.88%
44	WI	TENNEY TEL CO	\$320.84	\$564.67	\$243.83	76.00%
45	FL	QUINCY TEL CO-FL DIV	\$317.61	\$426.52	\$108.91	34.29%
46	NH	KEARSARGE TEL CO	\$312.16	\$521.83	\$209.67	67.17%
47	ID	TROY TELEPHONE CO	\$307.08	\$474.26	\$167.18	54.44%
48	OH	CONTINENTAL OF OHIO	\$305.29	\$558.96	\$253.67	83.09%
49	CO	DELTA COUNTY TEL CO	\$304.27	\$461.46	\$157.19	51.66%
50	MN	DANUBE TEL CO	\$301.79	\$676.35	\$374.56	124.11%
51	OK	MID-AMERICA TEL INC	\$298.85	\$671.36	\$372.51	124.65%
52	ME	WARREN TEL CO	\$296.81	\$832.11	\$535.30	180.35%
53	TN	TENNESSEE TEL CO	\$295.54	\$492.23	\$196.69	66.55%
54	MN	K M P TEL CO	\$286.82	\$996.13	\$709.31	247.30%
55	NY	ORISKANY FALLS TEL	\$285.06	\$421.45	\$136.39	47.85%
56	IN	CAMDEN TEL CO - IN	\$280.94	\$854.91	\$573.97	204.30%
57	GA	CAMDEN TEL & TEL CO	\$275.01	\$311.33	\$36.32	13.21%
58	AL	OAKMAN TEL CO (TDS)	\$271.45	\$846.82	\$575.37	211.96%
59	CO	STRASBURG TEL CO	\$270.98	\$522.54	\$251.56	92.83%
60	ME	WEST PENOBSCOT TEL	\$267.42	\$636.21	\$368.79	137.91%
61	MN	ARVIG TEL CO	\$262.93	\$667.98	\$405.05	154.05%
62	IN	COMM CORP OF S. IN	\$262.05	\$639.61	\$377.56	144.08%
63	AZ	SOUTHWESTERN TEL CO	\$259.81	\$2,150.03	\$1,890.22	727.54%
64	MN	MID STATE TEL CO	\$256.38	\$569.79	\$313.41	122.24%
65	SC	NORWAY TEL CO	\$253.12	\$770.83	\$517.71	204.53%
66	OH	VANLUE TEL CO	\$252.30	\$887.98	\$635.68	251.95%
67	WI	MIDWAY TEL CO	\$251.99	\$461.94	\$209.95	83.32%
68	TN	CONCORD TEL EXCHANGE	\$237.41	\$479.66	\$242.25	102.04%
69	GA	BLUE RIDGE TEL CO	\$237.41	\$723.61	\$486.20	204.79%
70	TN	TELLICO TEL CO	\$237.41	\$745.22	\$507.81	213.90%
71	WI	BADGER TELECOM, INC.	\$237.41	\$749.79	\$512.38	215.82%
72	MN	BRIDGEWATER TEL CO	\$237.41	\$543.24	\$305.83	128.82%
73	WI	EASTCOAST TELECOM	\$237.41	\$653.66	\$416.25	175.33%
74	WI	WAUNAKEE TEL CO	\$237.41	\$423.05	\$185.63	78.19%
75	MI	SHIAWASSEE TEL CO	\$237.41	\$681.21	\$443.80	186.93%
76	SC	ST STEPHEN TEL CO	\$237.41	\$809.74	\$572.33	241.07%
77	MI	COMM CORP OF MI	\$237.41	\$525.18	\$287.77	121.21%
78	MS	CALHOUN CITY TEL CO	\$237.41	\$742.48	\$505.07	212.74%

NOTE: Generally as a service area becomes smaller, the proxy derived total study area expense adjustment rises because the affects of geographic averaging have been removed.

TDS TELECOM

ACTUAL CPL VS. BCM2 CPL

Using Study-Area Factors

(developed using company specific carrying factors)

KEY	STATE	COMPANY	ACTUAL CPL	PROXY CPL	DIFFERENCE (PROXY LESS ACTUAL)	ABSOLUTE PERCENT CHANGE
79	WI	GRANTLAND TELECOM	\$237.41	\$667.04	\$429.63	180.97%
80	WI	BURLINGTON B&W	\$237.41	\$628.21	\$390.80	164.61%
81	WA	MCDANIEL TEL CO	\$237.41	\$911.30	\$673.88	283.85%
82	WI	RIVERSIDE TELECOM	\$237.41	\$558.37	\$320.96	135.19%
83	WI	STOCKBRIDGE & SHERWD	\$237.41	\$744.98	\$507.57	213.79%
84	WI	SCANDINAVIA TEL CO	\$237.41	\$1,086.14	\$848.73	357.50%
85	IN	HOME TEL CO INC	\$237.41	\$891.43	\$654.02	275.48%
86	VA	VIRGINIA TEL CO	\$237.41	\$534.88	\$297.47	125.30%
87	KY	SALEM TEL CO	\$237.41	\$856.79	\$619.38	260.89%
88	IN	HOME CO OF PITTSBORO	\$237.41	\$767.65	\$530.24	223.34%
89	WI	BONDUEL TEL CO	\$237.41	\$772.83	\$535.42	225.53%
90	TN	HUMPHREYS COUNTY TEL	\$237.41	\$927.25	\$689.84	290.57%
91	MN	WINSTED TEL CO	\$237.41	\$595.69	\$358.28	150.91%
92	WI	BLACK EARTH TEL CO	\$237.41	\$532.43	\$295.02	124.27%
93	KY	LEWISPORT TEL CO	\$237.41	\$743.80	\$506.39	213.30%
94	OH	OAKWOOD TEL CO	\$237.41	\$879.12	\$641.71	270.30%
95	NC	SERVICE TEL CO	\$237.41	\$839.05	\$601.64	253.42%
96	OH	ARCADIA TEL CO	\$237.41	\$638.41	\$401.00	168.91%
97	ME	HAMPDEN TEL CO	\$226.04	\$384.74	\$158.70	70.21%
98	WI	MT VERNON TEL CO	\$217.99	\$346.82	\$128.83	59.10%
99	VT	NORTHFIELD TEL CO	\$217.37	\$633.85	\$416.48	191.60%
100	NH	MERIDEN TEL CO	\$216.11	\$601.34	\$385.23	178.26%
101	MI	WOLVERINE TEL CO	\$203.63	\$562.13	\$358.50	176.05%
102	VT	LUDLOW TEL CO	\$200.98	\$541.40	\$340.42	169.38%
103	NY	VERNON TEL CO	\$195.39	\$476.05	\$280.65	143.64%
104	WI	UTELCO, INC	<u>\$190.68</u>	<u>\$252.63</u>	<u>\$61.95</u>	<u>32.49%</u>
TDS TELECOM AVERAGE			\$314.48	\$625.78	\$311.30	98.99%

NOTE: Generally as a service area becomes smaller, the proxy derived total study area expense adjustment rises because the affects of geographic averaging have been removed.